

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,305,056 B2  
 APPLICATION NO. : 10/715582  
 DATED : December 4, 2007  
 INVENTOR(S) : Brian William Kroeger

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8, Line 9

$y_{n,m} = 2 \cdot (1-\beta) \cdot y_{n-1,m} - (1-\beta)^2 \cdot y_{n-2,m} + \beta^2 \cdot x$  should read " $y_{n,m} = 2 \cdot (1-\beta) \cdot y_{n-1,m} - (1-\beta)^2 \cdot y_{n-2,m} + \beta^2 \cdot x_{n,m}$ "

Column 9, Line 21 should read

"...estimate of the coherent reference gain  $\alpha$  for each QPSK..."

Column 11, Line 9 should read

"...locally to the transient, but..."

Column 13, Line 18 should read

"Table 1 shows the input values of  $\alpha$  and...."

Column 13, Table 1

Corrected result  $\alpha$

$\alpha_{n-5}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\frac{\alpha_{n-2} + \alpha_{n+4}}{2}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+5}$
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should read

$\alpha_{n-5}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\alpha_{n-4}$	$\frac{\alpha_{n-4} + \alpha_{n+4}}{2}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+4}$	$\alpha_{n+5}$
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Column 13, Line 62 should read

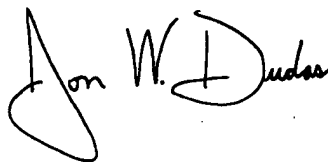
"...channel gain values  $\alpha$  in the vicinity...."

Column 14, Line 56 should read

"...and  $\text{var}1_n$  on line 330  $\text{var}1_n = \max...$ "

Signed and Sealed this

Ninth Day of December, 2008



JON W. DUDAS  
 Director of the United States Patent and Trademark Office